

### **REMARKS**

Claims 4-9 are pending in the application. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

### **SPECIFICATION**

The specification stands objected to for certain informalities. Applicant has amended the specification according to the Examiner's suggestions. Therefore, reconsideration and withdrawal of this objection are respectfully requested.

### **REJECTION UNDER 35 U.S.C. § 112**

Claim 9 stands rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point and distinctly claim the subject matter which Applicant regards as the invention. Applicant has amended claim 9 to address each of the Examiners' rejections. For at least this reason, the Examiner is respectfully requested to reconsider and withdraw the §112, second paragraph rejection of claim 9.

### **STATUTORY DOUBLE PATENTING REJECTION UNDER 35 U.S.C. § 101**

Claims 4-8 stand rejected under 35 U.S.C. § 101 as claiming the same invention as that of claims 14-18 of prior U.S. Patent No. 6,403,939 B1 (the '939 patent). This rejection is respectfully traversed.

As noted by the Examiner, amended claim 4 of the instant application recites, among other things, a first *semiconductor based* generator and a second *semiconductor based* generator. In contrast, claim 14 of the '939 patent recites, among other things, a first generating means and a second generating means. The first and second generating means are each recited in conjunction with a function as to invoke interpretation under 35 U.S.C. 112, paragraph 6 (*i.e.*, mean-plus-function). Amended claim 4 does not include means-plus-function form and, therefore, does not invoke interpretation under 35 U.S.C. 112, paragraph

6. Accordingly, the scope of claim 4 of the instant application, and claims 5-8 dependent therefrom, are different than the scope of claims 14-18 of the '939 patent. For at least this reason, the Examiner is respectfully requested to reconsider and withdraw the §101 rejection of claims 4-8.

**Rejection under 35 U.S.C. § 103**

Claims 4-8 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over WO 91/12888 ('888). Applicant respectfully traverses this rejection for the reasons detailed below.

Independent claim 4 recites, among other things, a first *semiconductor based* generator and a second *semiconductor based* generator. The first and second semiconductor based generators are capable of generating electromagnetic radiation at a plurality of frequencies. According to the disclosure of the present application, semiconductor based generators provide a variety of advantages over the conventional TWTs and magnetrons. (p. 12 at lines 20-21). In contrast, the '888 reference discloses a magnetron tube 12, which is known to provide a fixed frequency. Thus, the magnetron is inherently not capable of generating electromagnetic radiation at a plurality of frequencies. The fixed frequency is further emphasized by the control unit 11 which turns the magnetron tube ON and OFF to maintain the temperature in a water bath 2, rather than varying frequency. (p. 4 at lines 18-24). Thus, the '888 reference fails to disclose or suggest a semiconductor base generator capable of generating electromagnetic radiation at a plurality of frequencies. Accordingly, the '888 reference fails to render obvious claim 4 and claims 5-8 which depend therefrom. For at least this reason, the Examiner is respectfully requested to reconsider and withdraw the §103 rejection of claim 4, and claims 5-8 which depend therefrom.

Claim 9 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over WO 91/12888 in view of WO 95/27387 ('387). Applicant respectfully traverses this rejection for the reasons detailed below.

The Patent Office relies on the '387 reference for disclosing a microwave heating apparatus, experiments with water samples, and a taper waveguide coupler 68. The '387 reference, however, fails to remedy the shortcomings of the '888 reference explained above with reference to claim 4, from which claim 9 depends. Specifically, the '387 reference fails to disclose *semiconductor base* generators capable of generating electromagnetic radiation at a plurality of frequencies. As illustrated in Figure 6 and described in the Abstract, the '387 reference discloses apparatuses including a traveling wave tube (TWT) (20). As explained above, a TWT is outside the scope of the *semiconductor base* generators recited in claim 4, from which claim 9 depends. Thus, even assuming, *arguendo*, that it would be proper to combine the '888 and '387 references in the manner suggested, the suggested combination would still lack features recited by claim 9. Accordingly, the Examiner is respectfully requested to reconsider and withdraw the §103 rejection of claim 9.

#### CONCLUSION

In view of the above remarks and amendments, Applicants respectfully submit that each of the Office action rejections has been addressed and overcome, placing the present application in condition for allowance. A notice to that effect is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the listed number.

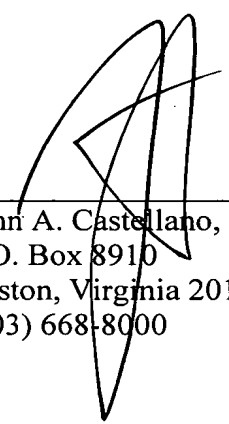
Applicant hereby petitions under the provisions of 37 C.F.R. § 1.136(a) for an extension of time in which to respond to the outstanding Office Action and includes a fee as set forth in 37 C.F.R. § 1.17(a) with this response for such extension of time. If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment

or credit any overpayment to Deposit Account No. **08-0750** for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

P.L.C.

Respectfully submitted,  
HARNES, DICKEY, & PIERCE,

By



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